

# Alternative Water Supply Program Fiscal Year 2004 Annual Report



**February 2004**

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*Promoting water conservation by developing  
cost-effective and safe alternative water resources to offset the  
growing demand on our natural supplies of freshwater.*

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## Introduction

For more than a decade, the South Florida Water Management District (SFWMD) has been engaged in cooperative funding agreements for alternative water supply systems and stormwater management projects.

Section 373.1961(2), Florida Statutes (F.S.) encourages governing boards of the water management districts to include funding for the development of alternative water supply systems in their annual budgets. Water management districts must share a portion of their ad valorem tax revenues with public and private entities willing to develop suitable alternative water resources. Alternative water supply systems are defined by Section 373.1961(2)(h), F.S.:

(h) For purposes of this subsection, alternative water supplies are supplies of water that have been reclaimed after one or more public supply, municipal, industrial, commercial, or agricultural uses, or are supplies of stormwater, or brackish or salt water, that have been treated in accordance with applicable rules and standards sufficient to supply the intended use.

The statute further requires that each district submit an annual report on alternative water supply funding to the Governor, the President of the Senate and the Speaker of the House of Representatives. This report will describe all alternative water supply projects funded by the SFWMD for fiscal year (FY) 2004 and is intended to satisfy the reporting requirement of the statute. The fiscal year began on October 1, 2003 and will end on September 31, 2004.

In fiscal year 2004, SFWMD contributed \$4.5 million to 34 water supply projects as part of the Alternative Water Supply Funding Program.

## Fiscal Year 2004 Alternative Water Supply Funding Program

To be eligible for the AWS Funding Program, projects must propose the development of capital facilities for effective and appropriate alternative water supplies. Until 2002, eligible projects were limited to proposed alternative water supplies within a designated Water Resource Caution Area. However, in 2002, legislation was passed to allow for proposed projects in all areas. The Kissimmee Basin Planning Area is now represented in this FY 2004 Annual Report.

The SFWMD established an AWS Funding Selection Committee composed of utility and environmental interest representatives. In FY 2004, the SFWMD received 42 requests for funding in response to the AWS Funding Program application process. Thirty-eight proposals were deemed eligible for consideration. A public workshop was held to allow selection committee members to discuss the proposals with the applicants. The four-member selection committee reviewed and ranked the proposals based on statutory requirements and evaluation criteria established by SFWMD's Governing

Board. The selection committee then recommended a list of eligible projects to the Governing Board. As part of the overall budget process, the Governing Board established the funding level for the entire AWS Program and each of the eligible project proposals.

Thirty-four proposals were approved for alternative water supply funding in FY 2004. A summary of the funded projects is presented in **Table 1**.

**Table 1.** Summary of FY 2003-2004 Alternative Water Supply Grant Program Projects and Funding

<b>Applicant Project Title Project Description</b>	<b>Additional Water (mgd)</b>	<b>SFWMD Funding</b>	<b>Total Project Cost</b>
<b>City of Pahokee</b> <b>Lake Region Water Treatment Plant Project</b> Project involves construction of a Floridan aquifer test well to determine design parameters for proposed Lake Region Water Treatment Plant (WTP). The Lake Region WTP will be a 12 MGD reverse osmosis water treatment plant using the Floridan aquifer as a source. The Lake Region WTP will remove the cities of Pahokee, South Bay, Belle Glade, Clewiston, and South Shore Water Association from using surface water derived from Lake Okeechobee. This project will provide more water for Everglades restoration by reducing withdrawals from the Lake. In addition, it will provide a reliable and high quality source of water for the five communities around the Lake that will not be impacted by backpumping discharges into the Lake by the SFWMD.	0.78	\$200,000	\$499,000
<b>City of South Bay</b> <b>Lake Region Water Treatment Plant Project</b> Project involves construction of a Floridan aquifer test well to determine design parameters for proposed Lake Region WTP. (See complete description of Lake Region WTP under City of Pahokee application.)	0.68	\$200,000	\$499,000
<b>City of Belle Glade</b> <b>Lake Region Water Treatment Plant Project</b> Project involves construction of a Floridan aquifer test well to determine design parameters for proposed Lake Region WTP. (See complete description of Lake Region WTP under City of Pahokee application.)	4.40	\$200,000	\$675,000
<b>City of Clewiston*</b> <b>Lake Region Water Treatment Plant Project</b> Project involves construction of a Floridan aquifer test well to determine design parameters for proposed Lake Region WTP. (See complete description of Lake Region WTP under City of Pahokee application.)	1.00	\$200,000	\$499,000
<b>South Shore Water Association*</b> <b>Lake Region Water Treatment Plant Project</b> Project involves construction of a Floridan aquifer test well to determine design parameters for proposed Lake Region WTP. (See complete description of Lake Region WTP under City of Pahokee application.)	0.56	\$200,000	\$499,000
<b>Palm Beach County</b> <b>Century Village Reuse</b> Construction of a 1.0 mgd reclaimed water production facility to provide reuse irrigation water to the Century Village development.	1.00	\$200,000	\$1,065,000
<b>Town of Manalapan</b> <b>Floridan Aquifer Wells</b> Construction of two Floridan aquifer water supply wells that will supply untreated water to a proposed new 2.5 mgd reverse osmosis water treatment plant to be constructed by the Town.	2.50	\$100,000	\$842,242
<b>Village of Wellington</b> <b>Village Park &amp; Water Reclamation Facility #2</b> Project will continue to establish, and make viable, the reuse system for the Village of Wellington. Projects include modification to WWTF control system, lake construction (Village Park & Water Reclamation Facility #2), Village Park irrigation system modifications and electrical and instrumentation for remote sites.	1.00	\$100,000	\$672,000
<b>South Central Regional Wastewater Treatment &amp; Disposal Board</b> <b>Reuse Plant Expansion (phased project)</b> Improvements to existing wastewater treatment plant including extension of distribution pipeline to serve additional users; up-sizing disposal pumps to increase capacity; installation of appurtenances to allow additional flow to the reclaimed water system in lieu of the ocean outfall; installation of state-mandated monitoring equipment. When completed, the total reclaimed water produced will be 24 mgd.	0.00	\$100,000	\$12,600,000

<b>Applicant Project Title Project Description</b>	<b>Additional Water (mgd)</b>	<b>SFWMD Funding</b>	<b>Total Project Cost</b>
<b>Jupiter Utilities RO Treatment Plant Expansion</b> Project is a 1.7 mgd expansion to the Town's reverse osmosis (RO) water treatment plant including pre-treatment, RO treatment, post treatment, chemical systems, electrical systems, clearwell and transfer pumping, control and instrumentation.	1.70	\$100,000	\$3,500,000
<b>Jupiter Utilities Floridan Aquifer Wells</b> Construction of three new Floridan aquifer wells and surface facilities, increasing the capacity of the existing 12 mgd reverse osmosis plant to 13.7 mgd, offsetting more reliance on the surficial aquifer. Also proposed are modifications to existing problem wells to improve water quality and capacity.	2.26	\$100,000	\$2,742,000
<b>Village of Tequesta RO Expansion</b> Project will continue to make it possible for the village to meet system demand with the reverse osmosis system. Adds RO well #3 and associated RO raw water main extension.	0.80	\$100,000	\$1,120,000
<b>City of Hollywood* Reclaimed Water System Expansion</b> Expand the reclaimed water distribution system to provide services to Boggs Field Park road medians, Rotary Park, and the Young Circle Arts Park. All connections are new customers.	0.20	\$100,000	\$480,000
<b>City of Miami Beach Normandy Shores Golf Club</b> Irrigation of the Normandy Shores Golf Course which will use brackish water from the golf course lakes to irrigate the course. The project also will replace existing sod to a salt-loving type and the pumps and pipe fittings will be adapted to tolerate brackish water distribution.	0.10	\$200,000	\$935,000
<b>City of North Miami Beach Nanofiltration Concentrate Treatment</b> Construction of additional reverse osmosis treatment facilities for the treatment of nanofiltration concentrate to increase the efficiency of the use of water withdrawn from the Biscayne Aquifer through recovery of water typically lost as concentrate in the membrane treatment process.	3.13	\$100,000	\$634,000
<b>Miami-Dade Water and Sewer Dept. Ultra Violet Disinfection – West Wellfield</b> Construct an ASR ultra-violet (UV) disinfection system to disinfect raw water from the wet season for use during the dry season, reducing impact on the Biscayne Aquifer.	21.00	\$200,000	\$2,053,000
<b>Miami-Dade Water and Sewer Dept. Ultra Violet Disinfection – Southwest Wellfield</b> Construct an ASR ultra-violet (UV) disinfection system to disinfect raw water from the wet season for use during the dry season, reducing impact on the Biscayne Aquifer.	14.00	\$100,000	\$2,149,000
<b>Florida Keys Aqueduct Authority Blending ASR Well</b> Construction of one Floridan aquifer well to a depth of approximately 1,200 feet. The well can be used for blending during periods of drought and for water storage as an ASR well. The well will be constructed using rotary drilling methods.	0.07	\$200,000	\$1,334,715
<b>City of Fort Myers Central WWTF Reclaimed Water Extension</b> Installation of equipment and controls necessary to increase the production capacity of the Central Advanced Wastewater Treatment Plant from 2 mgd to 6 mgd.	4.00	\$200,000	\$3,127,000
<b>City of Fort Myers RO Expansion</b> Project will add five production wells and additional membrane	13.00	\$100,000	\$9,800,000

<b>Applicant Project Title Project Description</b>	<b>Additional Water (mgd)</b>	<b>SFWMD Funding</b>	<b>Total Project Cost</b>
treatment trains to produce 12 to 14 mgd of potable water by April 2004. Project demonstrates city's continued commitment to use of alternative water supplies and elimination of use of stressed freshwater resources.			
<b>Cape Coral Reclaimed Water Supplemental Source</b> Weirs adjustments to increase storage capacity. A 3.5 mgd transfer station to pump water from one basin to another.	2.59	\$100,000	\$998,000
<b>City of Naples Reclaimed Water System Expansion</b> Construction of a reclaimed water transmission and distribution system that will provide approximately 3 mgd.	3.00	\$100,000	\$13,600,000
<b>Collier County ASR Expansion</b> Expansion of the Manatee Road ASR system, including construction of two ASR wells, attendant piping, and wellhead facilities.	2.00	\$100,000	\$1,260,100
<b>Bonita Springs San Carlos ASR Wells</b> Construction of three potable water ASR wells to store treated groundwater during wet weather, low demand periods for recovery during high demand, dry weather periods. The project will limit peak pumping events when the resource is most sensitive.	0.00	\$100,000	\$974,199
<b>Bonita Springs New RO Wellfield</b> Construction of six Floridan aquifer wells for public water supply.	3.00	\$100,000	\$2,800,000
<b>Bonita Springs RO Treatment</b> Construction of a 6.0 mgd reverse osmosis treatment facility to treat brackish groundwater from the Floridan aquifer for public water supply.	3.00	\$100,000	\$24,000,000
<b>Martin County Utilities North Reclaimed Water System Expansion</b> Install a pressurized reuse system consisting of a pump station, master metering station, and reuse pipeline.	0.33	\$100,000	\$570,000
<b>Martin County Utilities Tropical Farms RO Wellhead</b> Expansion of Tropical Farms reverse osmosis water treatment plant, construction of five Floridan aquifer well heads for future withdrawal from alternative supply.	3.90	\$100,000	\$750,000
<b>South Martin Regional Utility Reclaimed Water System Expansion</b> Extension of the irrigation quality (IQ) water system to supply new IQ customers and provide reclaimed water the Eaglewood. This connection will provide reclaimed water for irrigation purposes and subsequently reduce the demand on the shallow aquifer.	0.10	\$100,000	\$540,000
<b>Fort Pierce Utility Authority Reclaimed Water System</b> Reclaimed wastewater project to provide irrigation water to Fort Pierce Utilities Authority.	1.00	\$100,000	\$3,150,000
<b>Port St. Lucie Westport Reuse Westport Reclaimed Water System</b> Construction of a 3.0 mgd reclaimed water system for the Westport Wastewater treatment facility.	3.00	\$100,000	\$1,202,760
<b>City of Kissimmee Stormwater Reuse</b> Construction of a stormwater treatment system that will provide water to supplement the South Bermuda Water Reclamation Facility reuse system, provide recharge at the Champions Gate Rapid Infiltration Basins (RIBs) and reduce stormwater nutrient loading on Lake Tohopekaliga.	4.00	\$200,000	\$5,200,000

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<b>Orange County Utilities Department</b> <b>Ginn Property Reuse</b> Project will consist of taking 3 mgd from the Airport Wastewater Plant and not only serve the Ginn Property, but also provide additional capacity to the Orange County System. This will provide an alternative water source and water will not be taken directly from an existing potable source. No wetlands will be impacted by the pipelines, as exiting roads and OUC power easement will be used.	3.00	\$100,000	\$816,248
<b>City of St. Cloud</b> <b>Reclaimed Water System Expansion</b> Construct reclaimed water mains to provide reclaimed water to rapidly developing areas, providing reclaimed water to 352 unit subdivision using potable water at the present time for irrigation, eventually serving 937 units.	0.70	\$100,000	\$758,898
<b>TOTALS</b>	<b>101.80</b>	<b>\$4,500,000</b>	<b>\$102,345,162</b>

\*These projects will not go forward due to other considerations.



**[sfwmd.gov](http://sfwmd.gov)**

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